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# **Organization of the Palouse Conservation District**

The District is a political subdivision of the State of Washington with authorities, powers and structure contained in RCW 89.08. The District was established in 1940 and is currently led by a locally elected and appointed Board of Supervisors. The volunteer five-member Board is joined by Associate Supervisors, staff and other volunteers to carry out District activities.

# **Palouse Conservation District Summary**

LAND CLASSIFICATION:
PCD Total Acreage 368,519 acres
Cropland 310,519 acres
Rangeland 45,400 acres
Woodland 2,970 acres

POPULATION:
District Ag. Cooperators 728
Small Rural Landowners 5,000
City of Pullman 29,799/WSU 27,000
Colton 406, Uniontown 355,

Garfield 610, Albion 582, Palouse 980

#### **Function of the Palouse Conservation District**

To make available technical, financial and educational resources, whatever their source, and focus or coordinate them so that they meet the needs of the local land manager with conservation of soil, water and related natural resources.

# We Serve & Why

The District provides its programs and services to the landowners/managers within its boundaries to maintain both a productive land base and a healthy environment.

## Mission of the Palouse Conservation District

To actively assist current and future generations of land managers (both urban and rural) in implementing conservation practices by providing educational, technical and financial assistance.

#### Vision of the Palouse Conservation District

A productive, sustainable land base in harmony with a healthy environment, as well as a profitable agricultural industry that supports thriving communities, sustainable and responsible urban growth, clean air, clean water, quality soil, healthy well-managed wildlife populations, and citizens that are aware and informed on conservation issues.

## **Values of the Palouse Conservation District**

The following values guide our work:

- Wise use of natural resources to balance production with conservation.
- Comprised of local people making local decisions to achieve conservation.
- Honor private property rights.
- Quality education and technical assistance.
- Voluntary approaches for problem solving and to reach conservation goals.
- Local government that is responsive & responsible
- Efficient and effective use of public resources.
- Alignment of land manager goals with conservation needs

#### **Natural Resource Data & Information:**

## Palouse Conservation District Summary

- Many of the streams in the District are on WA Dept. of Ecology's 303(d) List as water quality impaired.
- Most of the cropland in the District is classified as Highly Erodible Land (HEL) that without conservation measures in place can experience annual soil erosion rates of up to 10-20 tons per acre.
- The primary deep water aquifer, the Grande Ronde, is in decline.
- Air quality continues to be a concern for Pullman residents & others.
- Urban stormwater runoff, discharge, and soil erosion continues to be a concern as well.
- Less than 1% of the original Palouse Prairie remains
- 84.3% of district is in acres that are in production

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## Priority Resource Background Information

#### Soil Health & Erosion Control

 Description: sheet, rill and wind erosion is caused by the detachment and transportation of soil particles caused by rainfall runoff or splash, irrigation runoff, or by wind. Vast areas of cropland in Palouse Conservation District have soil and slopes vulnerable to sheet, rill and/or wind erosion. Soils not protected by adequate crop cover, crop residues or other conservation practices, will have soil detachment and movement by water or wind.

Sheet and Rill Erosion. Sheet and rill erosion is caused primarily from rainfall from late fall through spring, and especially from rain on snow events when the soils are frozen. Estimates of tens of tons of soil loss per acre per year from sheet and rill erosion, in addition to more visible channel and gully erosion, has been well documented. The soils where the erosion occurs are degraded and become less productive. The detached soil, or sediment, is carried across fields with the runoff until it is either deposited on land, on roads, in culverts, or carried into streams and rivers. When the sediment deposition occurs on growing crops, economic damage occurs to the local producer. When it is deposited on roads or into culverts then transportation departments must pay for removal of the safety hazard and clogged waterways. When it is carried into a stream or river it degrades fish and wildlife habitat and affects water quality.

Wind Erosion. Wind erosion occurs when the soils are not protected by adequate crop cover, crop residues or other conservation practices, and the wind picks up enough velocity to detach the finer soil particles on the land. The soils where the wind erosion occurs are degraded and become less productive. The eroded soil particles become airborne affecting air quality, visibility and health. In some cases visibility is so poor that highways have been closed to avoid vehicular accidents and loss of life.

- Priority level(s): local, regional, and state natural resource priority
- o Source of data: Washington NRCS State Resource Assessment 2011: Priority Resource Concerns
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WSU Extension, Pacific NW Direct Seed Association, WA
  Dept. Fish and Wildlife, Department of Ecology, City of Pullman Stormwater Services, local agricultural consultants, local
  agricultural associations, local non-profit organizations, UI REACCH Extension, Palouse RCPP.

## Water Quality (all sources)

Description: Waterways within the Palouse Conservation District have been degraded due to a combination of sources including urban stormwater and agricultural run-off.

*Urban stormwater.* A majority of the storm drains throughout Palouse Conservation District are classified as a municipal separate storm sewer system. The storm drain system is separate from and therefore does not convey stormwater to local wastewater treatment plants. Stormwater runoff has been identified by Department of Ecology as the "number one water pollution problem in the urban areas of our state." Pollutants commonly found in stormwater include fertilizers, pesticides, vehicle fluids, trash,

sediment and pet waste. Stormwater can also contribute to problems associated with flooding. The polluted runoff drains into nearby gutters and storm drains and into local waterways. In most areas, stormwater runoff enters these waters without being cleaned of pollutants.

Agricultural runoff. The off-site transport of sediment from sheet, rill, gully, and wind erosion into surface water threatens to degrade surface water quality and limit use for intended purposes. The vast amount of cropland with erosive soil and exposed streambanks in Palouse Conservation District are seeing erosion that has effects far beyond where the land is eroded. Unprotected areas have soil detachment and movement by water, primarily from rain. This is especially true from rain on snow events when soils are frozen, with studies documenting tens of tons of soil loss per acre. When sediment enters the water column it increases turbidity and carries pollutants such as nutrients and pesticides. When sediment is deposited on roads or into culverts, the sediment becomes a safety hazard and causes clogged waterways and aquatic passage barriers requiring costly removal. In canals and shipping facilities, the sediment requires expensive mechanical removal and transport.

Nutrients (organics and inorganics) are a resource concern when transported to receiving waters through surface runoff, leaching into shallow ground waters, or both in quantities that degrade water quality and limit use for intended purposes. On cropland, nitrogen and phosphorus can be over applied and degrade plant health and vigor. Over application of nitrogen and phosphorus may lead to excess nutrients in surface and ground water. The excess nutrients cause algae and other aquatic plants to grow in lakes, which deprive aquatic life of vital oxygen. Pesticides may be over applied or applied near water bodies leading to surface water contamination. In addition, this resource concern is a priority as it relates to the livestock industry and the lack of adequate animal waste management. Animal waste is a point source of nutrients and pathogens into our waterways that degrade and threaten water quality and aquatic habitat.

- Priority level(s): local, regional, and state natural resource priority
- Source of data: Washington NRCS State Resource Assessment 2011: Priority Resource Concerns; City of Pullman Stormwater Services
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WSU Extension, Pacific NW Direct Seed Association, WA
  Dept. Fish and Wildlife, US Fish and Wildlife Service; Department of Ecology, City of Pullman Stormwater Services, City of
  Palouse, local agricultural consultants, local agricultural associations, local non-profit organizations, Adams CD, Palouse RCPP.

#### Education / Outreach

Description: Education and outreach to the public including landowners and residents within the Palouse Conservation District is
essential to increase the community's awareness of local natural resource conservation issues and needs. Benefits of education
and outreach include enhanced community involvement, increased public input into the District's planning processes, increased
awareness of the District's programs (including availability of technical and financial assistance) and increased conservation
practice implementation,.

- Priority level(s): local and regional priority
- Source of data: WRIA 34-Palouse Watershed Detailed Implementation Plan
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WSU Extension, Pacific NW Direct Seed Association, WA Dept. Fish and Wildlife, US Fish and Wildlife Service; Department of Ecology, City of Pullman Stormwater Services, City of Palouse, local agricultural consultants, local agricultural associations, local non-profit organizations, Palouse Prairie Foundation, UIREACCH Extension, Franklin CD-Wheat Week and Water on Wheels, Palouse RCPP.

#### Replenishing the Landscape (habitat, vegetation, prairie, pollinators, aesthetics)

#### Description:

Habitat. Habitat is degraded when the quantity, quality, or connectivity of food, cover, space, shelter, and/or water is inadequate to meet requirements of identified fish, wildlife, and invertebrate species. Plant communities may have insufficient composition and structure to achieve ecological functions and management objectives. This concern also addresses loss or degradation of wetland habitat and unique plant communities.

Vegetation/Prairie. Since 1870, 94% of the grasslands and 97% of the wetlands in the Palouse bioregion have been converted to crops, hay, or pasture. Most of the remaining small patches of grassland and riparian vegetation disappeared between 1940 and 1989. Today, some once common fauna and endemic flora survive only in small areas of grassland, shrub, and forest, and these remnants are threatened by weed invasion, herbicide drift, and introduced species.

Of the once-continuous native prairie dominated by midlength perennial grasses, only little more than 1% remains. It is one of the most endangered ecosystems in the United States, and all remaining parcels of native prairie are subject to weed invasions and occasional drifts of aerially applied agricultural chemicals. Two of the native plant communities, bluebunch wheatgrass-snowberry and bluebunch wheatgrass-rose, are globally rare, and several local plant species are threatened globally. Many once-intermittent streams are now farmed; many perennial streams with large wet meadows adjacent to them are now intermittent or deeply incised, and the adjacent meadows are seeded to annual crops. Few areas of camas bloom in the spring. Clean farming practices (field burning, herbicide use, and roadbed-to-roadbed farming) leave few fences and fewer fencerows, negatively impacting even those edge species which can flourish in agricultural areas.

With the virtual elimination of native prairies, species dependent on grassland ecosystems have declined or disappeared as well.

At the same time, new land uses offer habitats for a different suite of species. Humans have intentionally introduced non-native and sometimes invasive plant and animal species. Grazing, agriculture, and accidents have introduced a variety of exotic plants, many of which are vigorous enough to earn the title "noxious weed".

Changes in biodiversity in the canyonlands follow a parallel track, though from slightly different causes. Due to steep slopes and infertile soils, the canyonlands have been used for grazing instead of farming. Intense grazing and other disturbances have

resulted in undesirable changes, with the native grasses being largely replaced by nonnative annual brome grasses and noxious weeds, particularly star thistles.

Pollinators. Despite their small size and isolation, Palouse prairie remnants support a diverse native flora of over 350 plant species (Lichthardt and Moseley 1997; Hanson et al. 2008), some of which are listed as globally imperiled or federally threatened (Lichthardt and Moseley 1997; Weddell and Lichthardt 1998). Though limited, studies indicate that rich invertebrate communities also persist in this resilient ecosystem (Hatten et al. 2006; Looney et al. 2009; Pocewicz et al. 2009; Sánchez de-León and Johnson-Maynard 2009; Looney and Eigenbrode 2011). Although the Palouse faunae remain poorly known, conserving invertebrates and their ecological functions and services is essential for sustaining the health of remnant habitats (Samways 2005). Insects have numerous functions in ecosystem processes, as part of natural predator/prey relationships, as decomposers or detritivores, and critically as pollinators.

Bees are the most ubiquitous and diverse insect pollinators, and bumble bees, Bombus Latreille (Hymenoptera: Apoidea), are the most species rich and abundant group of social bees native to temperate North America (Kearns and Thomson 2001). Bumble bees have structural and behavioral adaptations for pollen collection and transport, and forage on pollen to feed developing larvae (Michener 2007). Unlike many solitary bees, bumble bees forage throughout the season, pollinating a diverse flora. Native bees provide lucrative pollination services for production agriculture, potentially totaling over \$3 billion per year in the USA alone (Losey and Vaughn 2006), and their pollination of non-cultivated plants is of inestimable value. Bees play a critical role in plant conservation, thus local or regional extinctions of bees can impact plant communities (Biesmeijer et al. 2006; Vamosi et al. 2006).

Despite the importance of bumble bees to native plant communities and agriculture, several North American species are in decline (Cane and Tepedino 2001; Colla and Packer 2008; Grixti et al. 2009; Cameron et al. 2011). Habitat loss and fragmentation contribute significantly to such declines, as do pesticide use and exposure to novel pathogens (Goulson et al. 2008; Cameron et al. 2011). Significant changes in bumble bee community composition and loss of genetic diversity have occurred in Illinois, as tall grass prairie was lost to agriculture (Grixti et al. 2009; Lozier and Cameron 2009). Bumble bee communities associated with small, isolated habitat remnants such as those found across the Palouse Prairie may be at similar risk, yet little is known about the bumble bee community in this habitat. Bee communities of remnant habitats are influenced by numerous factors, including the composition and quality of the surrounding landscape (i.e., the matrix) (Steffan-Dewenter and Tscharntke 1999; Steffan-Dewenter et al. 2002; Hines and Hendrix 2005; Hendrix et al. 2010). Bumble bees can travel up to 1.2 km (Knight et al. 2005) and routinely fly 450 m to 750 m between nest sites and floral patches (Walther-Hellwig and Frankl 2000). Hence, while floral diversity within habitats can be a strong predictor of bumble bee diversity, so too can density and diversity of floral resources in adjoining matrix habitats (Steffan-Dewenter et al. 2002; Hines and Hendrix 2005).

Aesthetics. Resource conservation in agricultural settings has focused on enhancing ecosystem services that directly support production, while consideration of cultural services (aesthetic, spiritual, educational, and recreational amenities) has been missing, or secondary at best (MEA 2005; Scherr and McNeely 2008). This neglect is partly due to difficulty measuring the often subjective and intangible character of these amenities (MEA 2005). Additionally, cultural services are usually perceived, experienced, and appreciated at larger spatial scales and traditionally associated with more pristine or minimally disturbed natural environments. However, at spatial scales larger than a single farm, landscape restructuring strategies will likely have a greater potential to more

fully regard the cultural dimensions of sustainability and ecosystem services (see Lovell and Johnston 2009; Musacchio 2009). Concurrently, researchers from landscape disciplines with common interests in sustainability have emphasized the complementarity and co-dependency of ecological sustainability and cultural sustainability (Thayer 1989; Naveh 2000; Décamps 2001; Tress et al. 2005; Wu 2006; Barrett et al. 2009). That is, landscapes must sustain not only vital natural resources, but also basic needs and quality of life for humans (Naveh 2000; Blaschke 2006; Barrett et al. 2009). Practically, creating and maintaining these landscapes will require human effort and care (Dubos 1976; Nassauer 1997; Décamps 2001; Merchant 2003; Meyer 2008). Several researchers contend that motivating land-use behavior toward sustainability and conservation goals may ultimately depend on understanding the underlying mechanisms

affecting human aesthetic response and attachment to landscapes (e.g., Mozingo 1997; Nassauer 1997; Linehan and Gross 1998; Parsons and Daniel 2002; Décamps 2001; Gobster et al. 2007; Meyer 2008).

In environmental psychology, perception-based assessments generally interpret human preference for a particular landscape as a measure of its aesthetic quality, which in turn, is interpreted as having high visual aesthetic quality (Kaplan 1987; Nassauer 1995; Daniel 2001). Human evolutionary history, biologically-based perception theory, and neurobiological evidence tell us that our visual aesthetic preferences are not frivolous, capricious, or superficial. Rather, aesthetic preferences result from inseparable perceptual, cognitive, and deep-rooted emotional processes that inform decisions having personal or social consequence (Parsons and Daniel 2002; Meyer 2008).

Within the Palouse Region, recent research has demonstrated that a relatively small amount of structural change communicates and supports improved ecological function. Simultaneously, this improved ecological structure is compatible and indicative of enhanced aesthetic appeal. Research results support the view that agricultural landscapes can be designed to accommodate both cultural and ecological benefits. These results my translate into inspiring human behavior toward landscape conservation and sustainability.

- Priority level(s): local, regional, and state natural resource priority
- Source of data: Washington NRCS State Resource Assessment 2012: Priority Resource Concerns; USGS The Land Use History of North America (LUHNA) Biodiversity and Land-use History of the Palouse Bioregion: Pre-European to Present; Hatten TD, Looney C, Strange JP, Bosque-Pérez NA. 2013. Bumble bee fauna of Palouse Prairie: Survey of native bee pollinators in a fragmented ecosystem. Journal of Insect Science 13:26. Available online: <a href="http://www.insectscience.org/13.26">http://www.insectscience.org/13.26</a>; Linda Ruth Klein. 2013. Quantifying relationships between ecology and aesthetics in agricultural landscapes. Linking ecology and aesthetics in agricultural landscapes: A case study from the palouse region of Washington State, U.S.A. May 2013 dissertation, Washington State University.
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WSU Extension, Pacific NW Direct Seed Association, WA
  Dept. Fish and Wildlife, US Fish and Wildlife Service; Department of Ecology, local agricultural consultants, local agricultural
  associations, local non-profit organizations, Palouse Prairie Foundation, IWJV, Whitman County, Palouse Wind, Snake River
  Salmon Recovery, Palouse Land Trust, Adams CD, Palouse RCPP.

#### Air Quality

Description: Air quality affects public health, the environment, and quality of life. Air pollution causes lung disease, makes existing heart and lung disease worse, and is associated with cancer. Breathing elevated levels of air pollutants can adversely affect human health, especially among sensitive populations such as children, the elderly, and those with heart or lung diseases. Potential health problems include lung damage, birth defects, nerve damage, reduced immunity, and an increased risk of developing cancer.

An air pollutant is any substance in the air that can cause harm to humans or the environment. Pollutants may be natural or human made and may take the form of solid particles, liquid droplets, or gases. Natural sources of air pollution include smoke from wildfires, dust, and even volcanic ash. Human made sources of air pollution include emissions from vehicles and factories; dust from unpaved roads, agriculture, or construction sites; and smoke from human-caused fires.

- Priority level(s): local and regional priority
- Source of data: Washington Department of Ecology Air Quality Program
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, Department of Ecology, local non-profit organizations, Palouse RCPP.

## Energy

- Description: Inefficient use of energy in the farm operation increases dependence on non-renewable energy sources that can be addressed through improved energy efficiency and the use of on-farm renewable energy sources.
- Priority level(s): local, regional, and state natural resource priority
- o Source of data: Washington NRCS State Resource Assessment 2011: Priority Resource Concerns
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, local agricultural consultants, local agricultural associations, local non-profit organizations. Palouse RCPP.

#### Weed Control

- Description: The rapid spread of invasive plants threatens natural resources across the Palouse Conservation District. Invasive species displace natural plant communities and have the following impacts:
  - Degraded and destroyed wildlife habitat
  - Reduced plant and animal diversity
  - Impaired land productivity

- Obstructed waterways and reduced water levels
- Erosion
- Fire hazards
- Restricted recreational activities
- Reduced land values
- Need for costly restoration
- o Priority level(s): local, regional, and state natural resource priority
- Source of data: Invasive Weeds of Eastern Washington- WSU Extension Manual EM005; Washington NRCS State Resource Assessment 2011: Priority Resource Concerns
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WSU Extension, Whitman County Weed Board, WA Dept.
   Fish and Wildlife, US Fish and Wildlife Service; Department of Ecology, local agricultural consultants, local agricultural associations, local non-profit organizations, Palouse Prairie Foundation, Adams CD, Palouse RCPP.

#### Small Acreage Issues

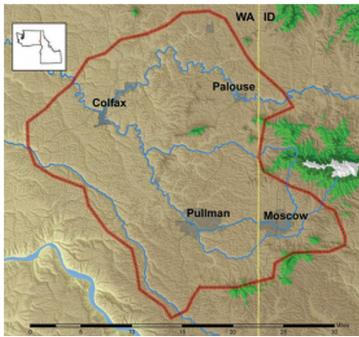
- Description: Conversion of agricultural lands to suburban homesites provides a new set of natural resource issues of concern within the Palouse Conservation District. Changes in wildlife habitat availability and populations can result. Suburbanization of agricultural lands does not necessarily favor native wildlife or plant species. Additionally, the keeping of livestock on small acreage provides challenges for soil erosion, water quality, and weed control. Dust resulting from added traffic on unpaved roads (due to an increase in population and pressure from additional housing development) can effect air quality.
- Priority level(s): local and regional
- Source of data: Washington NRCS State Resource Assessment 2011: Priority Resource Concerns; USGS The Land Use History of North America (LUHNA) Biodiversity and Land-use History of the Palouse Bioregion: Pre-European to Present
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WSU Extension, WA Dept. Fish and Wildlife, US Fish and Wildlife Service; Department of Ecology, City of Pullman Stormwater Services, local non-profit organizations, Palouse Prairie Foundation, Adams CD, Palouse RCPP.

#### Water Quantity

 Description: The Palouse groundwater basin is the sole source of water for over 60,000 residents of Pullman, Washington and Moscow, Idaho and outlying areas in both Whitman County (Washington) and Latah County (Idaho). Also included among our groundwater users are Washington State University and the University of Idaho. Ground water is pumped in the basin by five

major water suppliers (Pullman, Moscow, Colfax, Washington State University and the University of Idaho), several smaller cities and towns, and many businesses and rural residents residing in the unincorporated areas of Whitman County, Washington and Latah County, Idaho. Ground water levels in the deep aguifer system have been declining since measurement began in the late 19th century. Growth in the area following World War II led to increased pumping from the aguifer system, and by the late 1950's a serious decline in water levels was recognized by the cities, state institutions and regulatory agencies. Concerns regarding long term water supplies in the area led to the 1967 formation of an informal committee, known then as the Pullman-Moscow Water Resource Committee (PMWRC), to study the problem and make recommendations to the administrative and elected representatives of the major pumping entities. In time membership in the committee was expanded to include Whitman and Latah counties and then Colfax, Washington. And although not a formal PBAC member, since 2006 the City of Palouse has at times contributed funding toward the administration of the Committee. In 1998, to reflect its expanded membership and the regional nature of the resource, the committee name was changed to the Palouse Basin Aquifer Committee (PBAC). In 1992, the PMWRC, with the support of Washington and Idaho state regulatory agencies, enacted a Ground Water Management Plan (GWMP) for the basin. The Ground Water Management Plan and an associated Intergovernmental Agreement include requirements to report accomplishments, pumpage and water level information. The 2013 total combined ground water pumpage by the primary pumping entities within the basin was 2.61 billion gallons. In aggregate (Pullman, Moscow, WSU, UI, Colfax, Palouse), pumping for 2013 was approximately 1% less than in 2012, and 15.5% less than in 1992, the first year the Ground Water Management Plan took effect.

The precise boundaries of the basin have not been delineated (see working boundary below). Ground water in the basin is pumped primarily from two aquifer systems: the upper Wanapum and the lower Grande Ronde. The Wanapum and Grande Ronde Formations are part of the Columbia River Basalt Group, which consists of thousands of feet of lava flows that covered much of eastern Washington, northern Oregon, and portions of western Idaho during eruptions that occurred between 17 and 6 million years ago. The nature of the emplacement of the basalts over time resulted in significant differences in geology from west to east across the basin. The eastern end of the basin is characterized by thick sedimentary interbeds that thin west of Moscow. The Grande Ronde basalts are thicker beneath Pullman.



Working Boundary for the Palouse Ground Water Basin

The primary municipal drinking water source in the basin is the lower Grande Ronde aquifer system. In Pullman, all of the municipal residents obtain their drinking water from the Grande Ronde. Rural basin residents in Whitman County pump from both the upper and lower aquifers. In Moscow, 31% of the 2013 supply came from the upper Wanapum, and many of the rural residents in Latah County also tap the upper aquifer. In general, the Grande Ronde wells are more productive and contain higher quality water than those in the Wanapum. Water levels in the Grande Ronde have historically declined at a rate of between 0.6 and 1.5 feet per year for 70 or more years. Water levels in the upper aquifer dropped drastically in the late 1950s and early '60s, but recovered in the 1970s and '80s when much of the pumping switched to the lower aquifer. Although absolute values are still uncertain, it is thought that there is limited recharge to both the Wanapum and the Grande Ronde aquifer systems.

- Priority level(s): local and regional
- Source of data: 2013 Palouse Ground Water Basin Water Use Report, Palouse Basin Aquifer Committee, 2014.
- Engaged entities: Palouse Conservation District, Palouse Basin Aquifer Committee (PBAC), WSU, UI, City of Pullman, City of Moscow, City of Colfax, City of Palouse, Whitman County, Latah County, Department of Ecology, Idaho Department of Water Resources, local non-profit organizations, Palouse Water Summit, Palouse RCPP.

#### Climate Change

Description: The response of arid lands to climate change will be strongly influenced by interactions with nonclimatic factors such as land use at local scales. Livestock grazing, conversion to agriculture, urbanization, energy and natural resource development, habitat treatment, and even restoration activities have had both direct and indirect consequences. Land use change over the past 200 years has had a much greater effect on these ecosystems than has climate change, and the vast majority of land use changes have little to do with climate or climate change. Today's arid lands reflect a legacy of historic land uses, and future land use practices will arguably have the greatest impact on arid land ecosystems in the next two to five decades. In the near-term, climate fluctuation and change will be important primarily as it influences the impact of changes in land use on ecosystems, and how ecosystems respond to land use. In addition to traditional land uses such as agriculture and grazing, arid land response to future climate will be mediated by growing environmental pressures such as air pollution and nitrogen deposition, energy development, motorized off-road vehicles, feral pets, and invasion of non-native plants. Some of these factors may reinforce and accentuate climate effects (e.g., livestock grazing); others may constrain, offset or override climate effects (e.g., atmospheric CO2 enrichment, fire, non-native species).

Slight changes in temperature and precipitation can substantially alter the composition, distribution, and abundance of species in arid lands, and the products and services they provide. For example, observed and projected decreases in the frequency of freezing temperatures, lengthening of the frostfree season, and increased minimum temperatures can alter plant species ranges and shift the geographic and elevational boundaries of many arid lands. The extent of these changes will also depend on changes in precipitation and fire. Increased drought frequency could also cause majorchanges in vegetation cover. Losses of vegetative cover coupled with increases in precipitation intensity and climate-induced reductions in soil aggregate stability will dramatically increase potential

erosion rates. Transport of eroded sediment to streams coupled with changes in the timing and magnitude of minimum and maximum flows can affect water quality, riparian vegetation, and aquatic fauna. Major climate change effects on Washington's shrub-steppe and grassland ecosystems include:

- Changes in species composition, distribution, and community dynamics
- Changes in ecosystem productivity
- Changes in disturbance regimes

Although climate change can potentially impact arid land river and riparian ecosystems through a variety of mechanisms and pathways, three are particularly important. The first is the impact of climate change on water budgets. The second is competition between native and non-native species in a changing climate; and the third is the role of extreme climate events (e.g., flood and droughts) in a changing climate. Extreme events have always shaped ecosystems, but the interactions of a warmer climate with a strengthened and more variable hydrologic cycle are likely to be significant structuring agents for riverine corridors in arid lands.

- Priority level(s): local, regional, and global
- Source of data: Summary of Climate Change Effects on Major Habitat Types in Washington State: Shrub-Steppe and Grassland Habitats. Washington Department of Fish and Wildlife and the National Wildlife Federation. July, 2011. http://wdfw.wa.gov/conservation/climate\_change/

 Engaged entities: Palouse Conservation Districts, NRCS, WA Dept. Fish and Wildlife, US Fish and Wildlife Service; Department of Ecology, local non-profit organizations, Palouse Prairie Foundation, Palouse RCPP, Regional Approaches To Climate Change For Pacific Northwest Agriculture (REACCH).

#### Anadromous Fish Recovery and Aquatic Passage

- Description: Salmon recovery plans have been implemented in order to sustain and reverse the decline of endangered salmon species, preserving them for future generations. These species include Chinook salmon and steelhead trout. Salmon populations have been declining for a long period of time. Discerning the factors that contributed to this decline has been and is a lengthy process. Local, state, tribal and federal governments have been studying the processes that have contributed to dwindling salmon populations for over a decade and are currently implementing strategies for protecting and recovering salmon.
- Priority level(s): local and regional
- Source of data: Snake River Salmon Recovery Plan (SRSRP)
- Engaged entities: Whitman County Conservation Districts, NRCS, FSA, WA Dept. Fish and Wildlife, US Fish and Wildlife Service;
   local non-profit organizations, local consulting firms, Whitman County, Snake River Salmon Recovery, Palouse RCPP.

#### Urban Development

Description: There have been permanent losses of Palouse habitats to urban and rural residential growth. Resource managers are concerned by the growing number of ranchettes, subdivisions, subdivided cropland, and floodplain encroachment. Rural development often occurs near wooded areas, lakes, or streams. The increasing number of dwellings poses a threat to water quality due to the increased amount and dispersion of potential nutrient sources immediately adjacent to waterways, displaces habitat and wildlife. According to Knick et al. (2003), urbanization, roads, and powerlines continue to fragment ecological systems. This loss represents a major challenge for restoration because essential components of the system may be disrupted or lacking entirely. Knick et al. (2003) claims this loss of continuous habitat reaches, as a result of urbanization and agricultural conversion, may be irreversible.

The lower reaches of the North Fork and South Fork Palouse Rivers are confined to a concrete lined channel for nearly 0.5 miles as the stream enters the town of Colfax. This results in a loss of riparian habitat and channelizes the stream which contributes to hydrograph modifications. Ferguson et al. (2001) discuss effects of urbanization on wildlife and habitats, and state that predation rates on wildlife are higher in urban areas in comparison to similar exurban areas; with an increase in edge comes an increase in nest predation and brood parasitism. Their research suggests that increased predation in urban areas may be attributed to human pets—cats and dogs. Building and barren ground reduce and simplify vegetation within patches, and provide hunting areas for domestic cats and dogs that may effectively reduce the local abundance of vertebrate prey. Additional concerns related to urban development include:

- septic systems- rural residents are on individual septic systems for domestic waste treatment. Improperly installed or failing septic systems are a source of water quality impairments.
- road development- the transportation system within the Palouse River subbasin is a potential limiting factor to wildlife populations. Road densities and placement can have a negative impact on wildlife use of important habitat. More than 65 species of terrestrial vertebrates in the interior Columbia River basin have been shown to be negatively affected by roads (Ashley and Stovall 2004). Roads can negatively affect terrestrial vertebrate habitats and populations as well as water quality and fish populations. Habitat fragmentation, due to road construction and improper culvert placement, has also prevented migration of fish and amphibian species within and/or between some subbasin tributaries. Increasing road densities can reduce big game habitat effectiveness and increase vulnerability to harvest. Motorized access facilitates firewood cutting and commercial harvest, which can reduce the suitability of habitats surrounding roads to species that depend on large trees, snags, or logs. Roads also aid the spread of noxious weeds. Road construction and maintenance has contributed to channelization and relocation of natural streams, causing a loss of fisheries habitat, and has negatively impacted the subbasin's hydrograph.
- roadway erosion- Approximately 200 miles of unsurfaced roadways exist within the watershed. Unsurfaced (graveled and un-maintained) roadways contribute an estimated 12 tons/acre/year of sediment at a 60% sediment delivery ratio (Rasmussen et al. 1995).
- Priority level(s): local and regional
- o Source of data: Gilmore, S., Resource Planning Unlimited, Inc. Palouse Subbasin Management Plan. May 2004.
- Engaged entities: Whitman County Conservation Districts, NRCS, Department of Ecology, City of Pullman Stormwater Services,
   Whitman County Public Works, local non-profit organizations, Palouse Land Trust, Palouse RCPP.

# **Criteria for Selecting Conservation Priorities:**

- Does it fit best within the mission of the conservation district
- Advance or maintain the resource for now and the future
- Clean up waterways
- Advance a sustainable production system
- Protects and/or enhances shared resources
- Projects that will improve the most conditions and benefit the most people
- Plantings that would benefit carbon sequestration
- Would address the many facets of natural resource protection
- It is an efficient use of funding work done for funding spent

# Priority Natural Resource Conservation Needs & Geographic Areas, Measures of Success and Goals:

- Soil Health & Erosion Control
- Water Quality (all sources)
- Education / Outreach
- Replenishing the Landscape (habitat, vegetation, prairie, pollinators, aesthetics)
- Air Quality
- Energy
- Weed Control
- Small Acreage Issues
- Water Quantity
- Climate Change
- Anadromous Fish Recovery and Aquatic Passage
- Urban Development

## Priority Geographic Areas:

South Fork Palouse River Watershed and North Fork Palouse River Watershed will be the primary focus of our efforts with the Snake River Watershed being secondary.

Priority Natural Resource Conservation Needs	Measure of Success	Goals
Soil Health & Erosion Control	<ul> <li>Erosion rates (soil loss tolerance)</li> <li>Less sediment along roadways</li> <li>Sedimentation in water</li> <li># of complaints (zero)</li> <li>Soil health indicators</li> <li>Conservation Practices related to water quality improvement</li> <li>People assisted</li> <li>Conservation Plans developed</li> </ul>	By June 2020 have a demonstrated improvement in soil health including reduction in erosion as a result of people assisted, conservation plans developed and conservation practices implemented
Water Quality (all sources)	Water quality measures (ph, sediment, temperature, bacteria, other)	By June 2020 have a demonstrated improvement in

	T _	
	<ul> <li>Conservation Practices related to water quality improvement</li> </ul>	water quality measures for water bodies in the Palouse CD
	People assisted	including reduction in sediment,
	Conservation Plans developed	fecal coliform, temperature as a
	'	result of people assisted,
		conservation plans developed
		and conservation practices
		implemented
Replenishing the Landscape (habitat,	Trees and plants planted	By June 2020 have
vegetation, prairie, pollinators,	People assisted	demonstrated improvement in
aesthetics)	Public awareness	replenishing the landscape
	Native vegetation diversity	including habitat, vegetative
	Habitat and population	cover, Palouse Prairie; increase
	Conservation plans	number of people assisted,
	Concervation plane	conservation plans developed
		and practices implemented
Air Quality	Improved air quality	By June 2020 have a
	Successful agriculture burn program	demonstrated improvement in air
	People assisted	quality and reduction in
	# of complaints	complaints as a result of people
		assisted, agricultural burn permit
		plans developed and
		conservation practices
		implemented
Energy	People assisted with energy assessment	By June 2020 have a
	Amount of energy saved	demonstrated improvement in
	Conservation plans developed	agriculture energy conservation
	Conservation practices applied	as a result of people assisted
	' ''	with energy assessments,
		conservation plans developed,
		and conservation practices
		implemented
Weed Control	Acres of weed control implemented	By June 2020 have a
	Technical assistance on weed control for district	demonstrated improvement in
	projects	weed control and technical
		assistance for district projects as

Small Acreage Issues	<ul> <li>People assisted</li> <li>Conservation plans developed</li> <li>Conservation practices applied</li> </ul>	a result of people assisted, weed control practices implemented  By June 2020 have a demonstrated improvement in small acreage conservation issues as a result of people assisted, conservation plans developed and conservation practices implemented
Education / Outreach	<ul> <li># of people attending events</li> <li># of events</li> <li># of partner agencies and organizations reached</li> <li># of media articles and other media coverage</li> </ul>	By June 2020 have a demonstrated improvement in conservation awareness and interest as a result of educational and outreach events, partner agencies and organizations involved and media coverage.
Water Quantity	<ul> <li>People assisted</li> <li>Conservation plans developed</li> <li>Conservation practices applied</li> </ul>	By June 2020, have a demonstrated improvement in water quantity conservation issues as a result of people assisted, conservation plans developed and conservation practices implemented
Climate Change	<ul> <li>People assisted</li> <li>Conservation plans developed</li> <li>Conservation practices applied</li> </ul>	By June 2020, have a demonstrated improvement in implementation of conservation practices that address climate change issues as a result of people assisted, conservation plans developed and conservation practices implemented
Anadromous Fish Recovery and Aquatic Passage	<ul> <li>People assisted</li> <li>Conservation plans developed</li> <li>Conservation practices applied</li> <li>Aquatic passage improved</li> </ul>	Recovery of anadromous fish populations and improved aquatic passage
Urban Development	People assisted     Conservation plans developed     Conservation practices applied	By June 2020, have a demonstrated improvement in urban development conservation issues as a result of people assisted, conservation plans developed and conservation

		practices implemented
District Operations	<ul> <li>Effective operations</li> <li>Happy, well trained, well evaluated, well compensated employees</li> <li>Employee retention</li> </ul>	By June 2020 have a demonstrated improvement in district operations as a result of increased staff efficiency, updated training, and appropriate
		workload

# Information – Education & District Operations Priorities, Measures of Success, and Goals:

#### Information-Education:

**Goal:** By 2020, we will have reached 60% of PCD population regarding the conservation services, information, and technical assistance available through the PCD – utilizing publications, newspaper, radio & television public service spots, and personal contacts.

## District Operations:

Goal: Conduct effective and efficient operations in order to maximize benefits to both the people and resources within the District.

**Goal:** Build District capacity to provide programs and services to the people and the resources within the District.

Goal: Pursue partnerships and coordination with other entities to strengthen District programs and achieve common goals.

Goal: Pursue program and operational sustainability.

**Goal:** By 2020, complete effective and efficient operations including accounting, grant vouchering, personnel management, Supervisor elections & appointments, training & development, annual planning and reporting

## **Land Manager Needs:**

- Cost share
- Technical assistance
- Information and education
- Networking with other conservationist
- Clarity on regulatory thresholds
- Burn permits

# **Milestones, Timeline & Actions**

**Priority:** Soil Health & Erosion Control

**Measurable Goal:** By June 2020 have a demonstrated improvement in soil health including reduction in erosion as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Successful direct seed incentive program	ongoing	<ul> <li>Continuation of direct seed cost-share program</li> <li>Pursue additional funding to add an additional 12 participants to the direct seed cost-share program</li> <li>Work with Spokane CD regarding ideas for improving equipment</li> <li>Meet with past Direct Seed Cost-Share Program participants to obtain recommendations for program improvement and future promotion</li> <li>Promote soil health information and work sessions</li> </ul>
Developed alternative soil health programs	ongoing	<ul> <li>Look into funding to develop a soil pH cost-share program</li> <li>Look into funding to develop a cover crop cost-share program</li> <li>Look into funding to develop a CRP take-out with conversion to Direct Seed program</li> <li>Funded Western SARE grant and other research opportunities</li> <li>Pursue funding to address climate change and alternative crops</li> </ul>
Partnership with county road department	7/1/2015-6/30/2020	Contact road departments for sediment information and potential projects
Developed streambank erosion technical assistance and cost-share program	ongoing	<ul> <li>Utilize district engineer to perform evaluations of stream erosion and develop potential projects</li> <li>Cadle Berry streambank, and in-stream rehabilitation project with City of Pullman</li> </ul>
Successful RCPP partnership	ongoing	<ul> <li>Develop RCPP Partnership procedures</li> <li>Hire partnership staff,</li> <li>Funding sign-up</li> <li>Project planning</li> </ul>
Expanded partnership for project implementation on NRCS RCPP and Palouse River Watershed projects through additional funding	ongoing	<ul> <li>Expand partnership for project implementation on NRCS RCPP and Palouse River Watershed projects</li> <li>Secure additional funding to continue RCPP partner activities</li> </ul>

## **Priority:** Water Quality (all sources)

**Measurable Goal:** By June 2020 have a demonstrated improvement in water quality measures for water bodies in the Palouse CD including reduction in sediment, fecal coliform, temperature as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Successful contracted services and mitigation program for project implementation and maintenance	7/1/2015-6/30/2020	<ul> <li>Wetland project (2 acres) planned and implemented with mitigation funding.</li> <li>2 projects planned and implemented</li> </ul>
South Fork and North Fork Palouse River TMDL strategies implemented	ongoing	<ul> <li>South Fork Palouse riparian project planned and implemented</li> <li>Apply for additional TMDL implementation funding on South Fork Palouse based on producer interest</li> </ul>
Improved water quality monitoring program	ongoing	<ul> <li>Continue water quality monitoring on North Fork Palouse River</li> <li>Development of data base for North Fork Palouse River watershed baseline</li> <li>Develop water quality monitoring technical assistance and equipment check-out program</li> <li>Integrate with RCPP monitoring program</li> </ul>
Increased stormwater and urban waterways outreach	ongoing	Identify and secure additional funding to focus on urban waterways
Improved livestock technical assistance and cost-share program	ongoing	<ul> <li>Planning and technical assistance including livestock water developments</li> <li>Pursue CREP opportunities and landowner interest</li> <li>Implementation of Uhlenkott Livestock projects</li> </ul>
Successful RCPP partnership	ongoing	<ul> <li>Develop RCPP Partnership procedures</li> <li>Hire partnership staff,</li> <li>Funding sign-up</li> <li>Project planning</li> </ul>
Expanded partnership for project implementation on NRCS RCPP and Palouse River Watershed projects through additional funding	ongoing	<ul> <li>Expand partnership for project implementation on NRCS RCPP and Palouse River Watershed projects</li> <li>Secure additional funding to continue RCPP partner activities</li> </ul>
Improved cost share for water quality program	ongoing	Secure funding for Heitstuman Phase II
Full roll-out of Palouse River CREP pilot program	ongoing	<ul> <li>Planning and technical assistance including livestock water developments</li> <li>Pursue CREP opportunities and landowner interest</li> <li>Expanded eligibility for CREP</li> </ul>

**Priority:** Replenishing the Landscape (habitat, vegetation, prairie, pollinators, aesthetics)

**Measurable Goal:** By June 2020 have a demonstrated improvement in replenishing the landscape including habitat, vegetative cover, Palouse Prairie, as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Increased awareness of Annual Surplus Plant Sale	yearly	Plan, promote and conduct tree and plant sale
Increased local awareness of funding for and involvement in projects related to native vegetation and wildlife habitat	ongoing	<ul> <li>Continue work on seven US Fish &amp; Wildlife habitat enhancement using native plants, other projects</li> <li>Add additional wildlife and native plant protection/restoration projects</li> <li>Provide technical assistance for backyard wildlife and pollinator habitat</li> </ul>
Enhanced program support for Palouse Prairie	ongoing	<ul> <li>Implement Palouse Prairie phase II and Palouse Prairie Phase III grants and activities</li> <li>Continue to seek funding for Palouse Prairie projects</li> </ul>
Successful administration of ALEA grant(s)	7/1/15=6/30/16	Administer Pettit ALEA grant and expand ALEA grant opportunities
Full roll-out of Palouse River CREP pilot program	ongoing	<ul> <li>Planning and technical assistance including livestock water developments</li> <li>Pursue CREP opportunities and landowner interest</li> <li>Expanded eligibility for CREP</li> </ul>
Successful RCPP partnership	ongoing	<ul> <li>Develop RCPP Partnership procedures</li> <li>Hire partnership staff,</li> <li>Funding sign-up</li> <li>Project planning</li> </ul>
Successful roll-out of VSP	ongoing	Meet with County Commissioners and WSCC to discuss planning and process

**Priority:** Air Quality

**Measurable Goal:** By June 2020 have a demonstrated improvement in air quality and reduction in complaints as a result of people assisted, agricultural burn permit plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Successful Burn Program	ongoing	Ag burn permit program implementation including technical guidance
		Partner in research that investigates methods for improving air quality.
Successful technical assistance program for air quality	ongoing	See direct seed and planting program activity above for benefits to air quality

**Priority:** Energy

**Measurable Goal:** By June 2020 have a demonstrated improvement in agriculture energy conservation as a result of people assisted with energy assessments, conservation plans developed, and conservation practices implemented

Milestones	Timeline	12 Month Actions
Increased participation in Whitman County energy efficiency programs	ongoing	<ul> <li>Continue to partner with Pine Creek CD to offer opportunities for PCD operators to participate in agriculture energy conservation audits</li> <li>Look into opportunities to conduct additional energy audits for farms in the area</li> </ul>
Expanded opportunities for direct seed and precision agriculture	ongoing	<ul> <li>Cost share for 6 participants in direct seed program</li> <li>Expanded Precision Ag Series</li> </ul>

**Priority: Weed Control** 

**Measurable Goal:** By June 2020 have a demonstrated improvement in in weed control and technical assistance for district projects as a result of people assisted, weed control practices implemented

Milestones	Timeline	12 Month Actions
Developed weed program including technical assistance and contracted services	ongoing	<ul> <li>US Fish &amp; Wildlife partners project weed control</li> <li>Department of Transportation weed control projects</li> <li>Chipman Trail weed control project</li> <li>Mitigation project weed control</li> <li>Weed control in wetland areas</li> <li>ALEA grant</li> </ul>
Increased interaction with other local agencies to determine best coordinated weed control in the district	ongoing	Explore bio-control project activities

**Priority:** Small Acreage Issues

**Measurable Goal:** By June 2020 have a demonstrated improvement in small acreage conservation issues as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Successful small acreage	ongoing	Sunnyside Park area heavy use livestock area project technical assistance
program		
Enhanced awareness of technical	ongoing	Conduct outreach to small acreage land owners regarding available assistance
assistance and funding available		and information
for small acreage issues		Identify outreach and handbook materials available from other CDs

# **Priority:** Education / Outreach

**Measurable Goal:** By June 2020 have a demonstrated improvement in conservation awareness and interest as a result of educational and outreach events, partner agencies and organizations involved and media coverage.

Milestones	Timeline	12 Month Actions
Improved communications with	ongoing	Annual listening session of land managers
district residents and general		Annual tour of conservation projects including supervisor conservation work
public		Conservation Awards of the year
		Supervisor op-ed articles for newsletter
Increased interaction with local	ongoing	WSU Career Fair participation
universities and enhanced		Internship opportunities for local college students
opportunities for student		WSU Center for Civic Engagement activities
engagement		Secure Americorp member placement
Increased participation in	yearly	Lentil Festival
important local and regional		County fair
events		CPO group
Established educational	ongoing	Project Learning Tree and Project Wet workshops
programs for k-12 students,		Wheat Week
college students, and community		Water on Wheels
members		Stream trailer program with local schools
		Plan and conduct field days with local elementary schools
		Science Saturday programs with Palouse Discovery Science Center
		Plan and conduct local Envirothon competition
		Plan and conduct WA State Envirothon

**Priority:** Water Quantity

**Measurable Goal:** By June 2020, have a demonstrated improvement in water quantity conservation issues as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Enhanced awareness of water	ongoing	Participation on planning committee for Palouse Water Summit
quantity issues		Look for opportunities to partner with Palouse Basin Aquifer Committee (PBAC)
		Conduct outreach to residents regarding available assistance and information
		Identify outreach and handbook materials available from other CDs
Increased funding available for	ongoing	Look into project/program opportunities for permeable surfaces/parking lots, rain
water quantity issues		barrels, xeriscape, water retension.

**Priority:** Climate Change

**Measurable Goal:** By June 2020, have a demonstrated improvement in implementation of conservation practices that address climate change issues as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Secured dedicated funding for climate change activities	ongoing	Work with partners to identify and secure funding
Enhanced awareness of climate change issues	ongoing	<ul> <li>Continue partnership with REACCH</li> <li>Conduct outreach to residents available assistance and information</li> <li>Identify outreach and handbook materials available from other CDs</li> <li>Continuation of direct seed cost-share program</li> <li>Work with Spokane CD regarding ideas for improving equipment access</li> </ul>

**Priority:** Anadromous Fish Recovery and Aquatic Passage

Measurable Goal: Recovery of anadromous fish populations and improved aquatic passage

Milestones	Timeline	12 Month Actions
Recovery of anadromous fish	7/1/15-6/30/18	Uhlenkott culvert replacement design and implementation
populations and increased		Participate in Snake River Salmon Recovery process
aquatic passage		Continue to pursue funding for Whitman County anadromous projects

Enhanced awareness of technical	ongoing	Conduct outreach to land owners regarding available assistance and
assistance and funding available		information
for anadromous fish issues		Identify outreach and handbook materials available from other CDs

## **Priority:** Urban Development

**Measurable Goal:** By June 2020, have a demonstrated improvement in urban development conservation issues as a result of people assisted, conservation plans developed and conservation practices implemented

Milestones	Timeline	12 Month Actions
Increased awareness of	ongoing	Sunnyside Park area heavy use livestock area project technical assistance
stormwater issues		Seek dedicated funding for stormwater program
Enhanced awareness of technical assistance and funding available	ongoing	Conduct outreach to land owners regarding available assistance and information
for succession planning and		Identify outreach and handbook materials available from other CDs
conservation easements		<ul> <li>Partner with WCSS and Palouse Land Trust to support succession planning awareness</li> </ul>
		<ul> <li>Partner with Palouse Land Trust to implement NRCS RCPP conservation easement on SF Palouse River</li> </ul>
		Partner with Palouse Land Trust to support Agricultural Conservation
		Easements

## **Priority:** District Operations

**Measurable Goal:** By June 2020 have a demonstrated improvement in district operations as a result of adequate funding, increased staff efficiency, updated training, and appropriate workload

Milestones	Timeline	12 Month Actions
Adequate funding available	ongoing	<ul> <li>Legislative activities, efforts and influence</li> <li>Identify additional funding opportunities</li> </ul>
Updated District policies	7/1/2015-6/30/2020	Revise policy manual     Policy on bidding, contracting, purchases
Updated District plans to reflect adequate operations	ongoing	<ul> <li>Building operations – lease, heat, infrastructure, storage,</li> <li>Annual plan of work, budget, and workload</li> <li>Updated long range plan</li> </ul>

Enhanced employee relations, training and resources	ongoing	<ul> <li>Training plans for new employees</li> <li>Annual employee evaluations to include consideration of accurate and appropriate position description, work load, compensation, and benefits</li> </ul>
Enhanced partnerships with local, regional, state, and national entities	ongoing	<ul> <li>Identify partnerships</li> <li>Assign a relationship manager to keep partnerships strong</li> <li>Identify opportunities to collaborate for funding and project implementation</li> </ul>

# **Staffing Needs**

Fifteen full-time employees, two part-time employees, two AmeriCorps, and four interns will conduct District business:

- Director
- Projects and Grants Manager
- Partnership Manager
- Administrative and Financial Coordinator- Financial accounting / Grants tracking / Secretary
- Natural Resource Coordinator
- Conservation Agriculture Coordinator
- Riparian Coordinator
- Monitoring Coordinator
- Education and Outreach Coordinator
- Urban Programs Coordinator
- Conservation Planners (3)
- Natural Resource Technicians (2) farm planning, burn permit, GIS, water quality monitoring, urban planning (LID), small parcel planning, wildlife habitat and native vegetation restoration
- Botanist- Part time
- Engineer Part time
- AmeriCorps (2)
- Interns (4)

# **Annual Budget Needs**

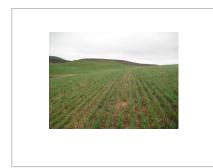
- Salary & Benefits \$935,200
- Office Supplies \$20,000
- IT Purchase & Repair- \$40,000
- Training& Meetings \$50,000
- Communication- 15,000

- Transportation \$30,000
- Advertising, Education & Marketing- \$30,000
- Rent, Utilities & Leases \$48,000
- Insurance- \$10,000
- Dues- \$8,000
- Maintenance- \$10,000
- Field Supplies- \$45,000
- Contracted Services- \$50,000
- Purchase for Resale- \$5,000
- Burn Permits- \$6,580
- Programs & Cost Share \$1,000,000

Total Annual Budget Need: \$2,302,780

# **Key Decision Makers**

- Landowners
- Governor
- Legislators
- Commodity Groups
- County Commissioners
- City Councils
- Environmental Groups
- Partner Agencies
- WSCC



Washington Conservation Districts assisting land managers with their conservation choices